

20000111.ba v02\_n776.bam.20000111

>From ???@??? Tue Jan 11 16:24:52 2000 -0600  
Date: Tue, 11 Jan 2000 16:22:30 CST  
From: Old Tube Radios <boatanchors@theporch.com>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: BOATANCHORS digest 2776  
Message-Id: <20000111222824.E36E427405@devel143.theporch.com>

BOATANCHORS Digest 2776

Topics covered in this issue include:

- 1) VALIANT METER WTB  
by JACK Iverson <jackiv@juno.com>
- 2) BENCH MULTIMETER RECOMMENDATION  
by David Stinson <arc5@ix.netcom.com>
- 3) RE: "ARC-5" and Other WWII Military Nomenclature Systems  
by Merz Donald S <merz.ds@mellon.com>
- 4) FS: Heath SB-1000  
by Ray Vasek <w2ec@attglobal.net>
- 5) Re: Capacitor Leakage - How much?  
by jan@skirrow.org
- 6) Re: "ARC-5" and Other WWII Military Nomenclature Systems  
by Jerry Proc <jproc@idirect.com>
- 7) Re patterson pr-16  
by philip mccooy <dgnova@erols.com>
- 8) Re: VT Fuzes(Again)  
by Roy Morgan <roy.morgan@nist.gov>
- 9) WTB: Eimac 50T or 150T  
by Merz Donald S <merz.ds@mellon.com>
- 10) UTC LS-33982 Transformer: Info wanted.  
by Roy Morgan <roy.morgan@nist.gov>
- 11) Re: Chuck's safety hints, my comments and additions.  
by "Prof. Arthur I. Larky" <ail0@lehigh.edu>
- 12) Re: BENCH MULTIMETER RECOMMENDATION  
by Deane D McIntyre <dmcintyr@ucalgary.ca>
- 13) ARR-2 rx bits needed  
by BEN NOCK <G4BXD@compuserve.com>
- 14) WTB: WS No 19 items - Me too !!!!!  
by jmccarty@lucent.com (John J Mccarty)
- 15) RE: Ranger-I help  
by n6nae@ix.netcom.com
- 16) FS military antenna base  
by brian.harris\_2@philips.com
- 17) Re: BENCH MULTIMETER RECOMMENDATION  
by Morris Odell <morriso@vifp.monash.edu.au>
- 18) Re: Ranger-I help

- by Arden Allen <gumbear@pacbell.net>  
19) RE: Ranger-I help  
by Allan Stephens <modsteph@ACS.EKU.EDU>  
20) Query for the Brits  
by Morris Odell <morriso@vifp.monash.edu.au>  
21) Re: BENCH MULTIMETER RECOMMENDATION  
by Tom Norris <badger@telalink.net>  
22) Re: BENCH MULTIMETER RECOMMENDATION  
by Scott Robinson <spr@earthlink.net>

-----  
To: Old Tube Radios <boatanchors@theporch.com>  
Date: Tue, 11 Jan 2000 06:19:58 -0600  
Subject: VALIANT METER WTB  
Message-ID: <20000111.070126.-375511.13.jackiv@juno.com>  
MIME-Version: 1.0  
Content-Type: text/plain  
Content-Transfer-Encoding: 7bit  
From: JACK Iverson <jackiv@juno.com>

Good day to all. I need a meter front cover or a complete meter (need not be good) for a johnson viking valiant. Was lost in a move..

                  thanks 73 jack  
Jack Iverson K0EWU jackiv@juno.com  
ARRL, IEEE LM, RCA, AMI, ARCI, QCWA,CCA,OOTC.

-----  
Message-ID: <387B3FAF.19D69417@ix.netcom.com>  
Date: Tue, 11 Jan 2000 08:35:27 -0600  
From: David Stinson <arc5@ix.netcom.com>  
MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: BENCH MULTIMETER RECOMMENDATION  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Need a recommendation from the group.  
I fried my old digital multimeter,  
probably as an excuse to get a new one-  
it wasn't very good.

I've got half a dozen rigs around here like TR-7 and TS-820  
to fix and my old Simpson 260 just won't cut it  
for that work. I need a good, affordable bench multimeter  
that is accurate and reliable. When it reads "10.00 volts,"  
I need to know it's -correct-.  
I don't have access to the EG&G cal lab anymore ;-).

There's a wide choice of meter manufacturers.  
Can you recommend a brand?

Thanks in advance for your help,  
Dave S.

-----  
Message-ID: <20000111154336.18544.qmail@mellon.com>  
From: Merz Donald S <merz.ds@mellon.com>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: RE: "ARC-5" and Other WWII Military Nomenclature Systems  
Date: Tue, 11 Jan 2000 10:39:57 -0500  
MIME-Version: 1.0  
Content-Type: text/plain

This is a wonderful write-up, of course. I have a small addition. Regarding this section:

> > May I assume that the Signal Corps was common to both  
> > the army and the air arm thus procuring equipment for both?  
> The Army Signal Corps did procure equipment for all  
> branches of the Army.  
>

My understanding of this is that the AAF did try at first to control its own radio destiny. This effort produced the Jefferson Travis JT-350 transmitter/receiver. The JT-350 is listed in TM 11-387 but has no SCR designation or basic component markings, etc. The story I heard was that the AAF got these radios produced and actually used them in the Torch landings. But then they had to use the Army logistics chain for spare parts and Ft. Monmouth would only allow parts for its own radios into the supply chain so the AAF had to give up these sets.

Can anyone shed any additional light on this tale?

--Don Merz, N3RHT

-----  
Message-ID: <387B52DE.DED7BB91@attglobal.net>  
Date: Tue, 11 Jan 2000 10:57:18 -0500  
From: Ray Vasek <w2ec@attglobal.net>  
MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: FS: Heath SB-1000  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Original owner of this Heathkit SB-1000.

Excellent condition 9.5 out of 10 HF (160 thru 10 meters) amp. Also have used it with no problems on MARS frequencies. Works perfect, currently wired for 230vac, can be wired for 115vac if necessary.

Original manuals (1-Assembly, 2-Operation) included.

Can be seen at: "[http://www.geocities.com/~ac\\_cars/radios.html](http://www.geocities.com/~ac_cars/radios.html)"

\$650.00 plus packing/shipping from NY 13732

Would also be interested in trading for a TS-50S or IC-706 for mobile use.

73, Ray W2EC

-----  
Message-Id: <Version.32.20000110172240.00f6c370@mail.islandnet.com>  
Date: Tue, 11 Jan 2000 08:15:22 -0800  
To: Old Tube Radios <boatanchors@theporch.com>  
From: jan@skirrow.org  
Subject: Re: Capacitor Leakage - How much?  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

At 04:51 PM 1/9/00 -0500, Denis Sharon W1AOK wrote:

>Hello everyone,

>

>Can someone point me toward a reference source for  
>nominal/acceptable leakage current values for capacitors? Now  
>that I've finally got a decent capacitor tester (Sprague TO-6),  
>I realized that I don't have a 'feel' for reasonable leakage  
>rates.

Hi All ...

This post reminded me that I'd seen specs for cap leakage in the manual for my Hallicrafters S-36. So I went back and looked. What's interesting is that the cap "quality" is specified differently, depending upon the circuit function. E.g: A 10pf ceramic cap coupling two front end tubes specifies a power factor limit not to exceed 0.1% at 1.5MHz. The AVC bypass cap - a .01 molded paper - specifies an ability to withstand a 2200vdc flash test. A 20Mfd cathode bypass says 0.5mA leakage at a max operating temp at the rated voltage.

I expect the kind of cap quality we take for granted now was much harder to produce reliably decades back. As a result the designers gave some thought to what was actually required in a given circuit.

The manual for the Heath IT-28 specs leakage - for calibration purposes - as follows:

Type Electrolytic Maximum leakage 2mA.  
Type Mini-Electrolytic Maximum leakage 15uA  
Type Paper 2uA

Jan Skirrow, VE7DJX

... in sunny (sometimes rainy) Maple Bay, BC, Canada

\*\*\*\*\*  
"So many radios, so little time"

Please note the new URL for Boatanchor Dreams:

<http://www.skirrow.org/Boatanchors/>

Information, Parts, Pictures, Articles: The R-390A  
and other classic gear.

Also, my new e-mail address is:

[jan@skirrow.org](mailto:jan@skirrow.org)

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-----  
Message-ID: <387B5960.61958F3@idirect.com>  
Date: Tue, 11 Jan 2000 11:25:05 -0500  
From: Jerry Proc <jproc@idirect.com>  
MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
CC: boatanchors@theporch.com  
Subject: Re: "ARC-5" and Other WWII Military Nomenclature Systems  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Great writeup Dave!! I'm going to file that post in my Boatanchors reference archive.

--

Regards,  
Jerry Proc VE3FAB jproc@idirect.com  
Web: www3.sympatico.ca/hrc/haida  
HMCS HAIDA Historic Naval Ship, Toronto Ontario

-----  
Message-ID: <387B5C5A.1B74BD9A@erols.com>  
Date: Tue, 11 Jan 2000 11:37:46 -0500  
From: philip mccooy <dgnova@erols.com>  
MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re patterson pr-16  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

I have uploaded the schematics and data for the patterson PR-16 on  
my web site at <http://www.qsl.net/w3sak>

-----  
Message-Id: <4.2.0.58.200001111115412.009c8ef0@sdct-sunsrv1.ncsl.nist.gov>  
Date: Tue, 11 Jan 2000 11:54:48 -0500  
To: Old Tube Radios <boatanchors@theporch.com>  
From: Roy Morgan <roy.morgan@nist.gov>  
Subject: Re: VT Fuzes(Again)  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"; format=flowed

At 12:23 AM 1/11/00 -0600, you wrote:  
>From: Hue Miller <kargokult@proaxis.com>  
>Subject: Re: VT Fuzes(Again)  
> >Height of Burst (HOB) depends heavily on the conductivity of the ground  
> >that is in the bombardment area.  
>  
>--Was there any adustment on the thing that could be set by the 'end user'?

No. The end user died.

Roy

-  
Roy Morgan  
Keep em glowing! K1LKY since 1959  
7130 Panorama Drive, Derwood MD 20855  
301-330-8828

-----  
Message-ID: <20000111171448.25687.qmail@mellon.com>  
From: Merz Donald S <merz.ds@mellon.com>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: WTB: Eimac 50T or 150T  
Date: Tue, 11 Jan 2000 12:11:11 -0500  
MIME-Version: 1.0  
Content-Type: text/plain

WANTED: Eimac 50T or 150T transmitting tubes. I have a homebrew ham transmitter that uses the 50T in a single-ended final (odd, I know, but that's what it is...). But the 50T seems quite scarce--it was only made for a year or two in 1937-38 and quickly superceded by better tubes. So I am thinking that I could make a 150T tube work if that was more easily available. If you have either tube and would be willing to sell then I'd like to hear from you. Also, if you know of any transmitter designs using these tubes, then I'd like to hear that too since so far, I have been unable to locate the original design that the ham who built this thing was following.

Any help appreciated.  
--Don Merz, N3RHT

-----  
Message-Id: <4.2.0.58.20000111121742.009d3d10@sdct-sunsrv1.ncsl.nist.gov>  
Date: Tue, 11 Jan 2000 12:37:00 -0500  
To: Old Tube Radios <boatanchors@theporch.com>  
From: Roy Morgan <roy.morgan@nist.gov>  
Subject: UTC LS-33982 Transformer: Info wanted.  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"; format=flowed

Anchorites,

I have info on normal UTC LS series transformers, but not this one.  
Any specs/info welcome.

UTC LS-33982

Appears to be a P-P plates to Class B grids driver of large size.  
Terminals are: P, B, B, P (the input) G, F, F, G (the output) This is schematic "B" of the LS Terminal Arrangements Sheet.  
It is in the old style black, cast LS case of the 30's and 40's.

Thanks in advance.

Roy

-

Roy Morgan  
Keep em glowing! K1LKY since 1959  
7130 Panorama Drive, Derwood MD 20855  
301-330-8828

-----  
Message-ID: <387B26D9.99@lehigh.edu>  
Date: Tue, 11 Jan 2000 12:49:29 +0000  
From: "Prof. Arthur I. Larky" <ail0@lehigh.edu>  
MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
CC: boatanchors@theporch.com  
Subject: Re: Chuck's safety hints, my comments and additions.  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Roberta J. Barmore wrote:

>  
> Hi!  
>  
> Power input wiring: hot to the \*rear\* contact of the fuse-holder (if  
> it's a panel-mount type), then from the front contact to the switch.  
> Really should unplug stuff before changing the fuse, but this way, if a  
> decent fuseholder that grabs the fuse in the cap is used, you're a little  
> better off.

Swapping the wiring in around in my SuperPro to get things right was a  
simple job. It has the proper type of fuse post; you would have to make  
a determined effort in order to touch a still hot part of the assembly  
while removing the fuse.

Art K3HBA

-----  
Message-ID: <387B6D96.F0D2C622@ucalgary.ca>  
Date: Tue, 11 Jan 2000 10:51:16 -0700  
From: Deane D McIntyre <dmcintyr@ucalgary.ca>  
MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: BENCH MULTIMETER RECOMMENDATION  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

David Stinson wrote:



>  
> Need a recommendation from the group.  
> I fried my old digital multimeter,  
> probably as an excuse to get a new one-  
> it wasn't very good.  
>

If you insist on a digital meter, spend the extra cash and buy a Fluke. Use them both at work and in the shack, check them against a standard Weston cell once or twice a year, and they are always bang on. The cheaper meters can't come close to Fluke in quality. If you can find a HP bench meter at a reasonable price that is another possibility.

In keeping with the spirit of things that glow in the dark, I prefer to use a VTVM when working with BA's. The resistor in the probe helps to prevent capacitive circuit loading (important when checking oscillator grids, for example) and when doing an alignment I find it easier to follow a moving needle than changing digits or even the so called analogue LCD "strip" on the Fluke.

I like the Heath IM-13 or the Simpson 311-3 (which I discussed on this list last week) the best. Both are quite accurate at both voltage and resistance readings.

Speaking of the Simpson VTVM, shorting after posting the note about it last week I noticed that the voltage readings tended to drift with time, and were also quite dependent on the line voltage (even after rezeroing). Pulled the 12AU7 and checked it on the Hickok 539. The Gm of one triode section was 500, the other 800. According to Hickok, the minimum Gm for this tube is 1900, and as the tube is used in a bridge circuit in the VTVM it is easy to see how a tube with grossly mismatched triode sections would be bad news. A used 12AU7 I had measured over 2000 for both triodes, and were within a few percent of each other. I put that tube in the Simpson, recalibrated and everything is happy. Plugged the VTVM into a Variac and the change with line voltage has for all reasonable line voltage variations gone away for all practical purposes.

Note I used a used 12AU7..tubes for VTVM's often have to be "aged" and using a used tube avoided this problem for the most part. The 5814 is a 12AU7 with matched sections and

73, Deane D McIntyre VE6BP0  
dmcintyr@ucalgary.ca

From: jmccarty@lucent.com (John J Mccarty)  
Date: Tue, 11 Jan 2000 13:06:59 -0600 (CST)  
Message-Id: <200001111906.NAA05375@nwsqpb.ih.lucent.com>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: WTB: WS No 19 items - Me too !!!!!

I'm chasing the same parts as Paul. Any help is appreciated here too !

John n9hrt

>From owner-boatanchors@theporch.com Sun Jan 9 17:11:31 2000  
To: Old Tube Radios <boatanchors@theporch.com>  
From: Paul Thekan <Paul.Thekan@eimac.cpii.com>  
Subject: WTB: WS No 19 items  
Mime-Version: 1.0

Hello to the group

I'd like to find the canvas cover , radio and dynamotor mount and grill  
for my WS No 19 Mk2. Any help is appreciated.

Thank you  
Paul  
N6FEG

-----  
From: n6nae@ix.netcom.com  
Date: Tue, 11 Jan 2000 14:49:00 -0500  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: RE: Ranger-I help  
Message-ID: <Springmail.105.947620140.0.61496200@www.springmail.com>

Hi:

Since the fuse plug contains two different value fuses, would a  
correct update be to put two fuseholders in series in the hot-lead  
under the chassis? I think there is fast-blo fuse of higher amps  
for major malfunctions, and a slo-blo fuse of lower amps for tune  
errors. At least that's my interpretation of this.

I didn't know EFJ made a Ranger-I. I have a Ranger, and they made  
a Ranger-II, but I've never seen a Ranger-I. Picky, picky, picky.  
Richard

-----  
From: brian.harris\_2@philips.com  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: FS military antenna base  
Message-ID: <00569100031986110000002L112\*@MHS>  
Date: Tue, 11 Jan 2000 14:42:14 -0600  
MIME-Version: 1.0  
Content-Type: text/plain; charset=iso-8859-1; name="MEMO 01/11/00 14:44:41"  
Content-Transfer-Encoding: quoted-printable  
Content-Disposition: inline

For Sale - One NIB Base Mast AB-15/GR FSN 5895-00-221-5544 Dated 9/90=

This item is similar, if not identical, to the antenna bases we used on the amphibious boats (LCP and LCM) on which I rode in VN. It accepts the copper plated, steel antenna sections that screw together to make a whip maybe 8-10 feet long, if my memory serves me correctly. I still use a 60's version of this base with some old antenna sections that are permanently rusted together as a 10 meter vertical that sways nicely in the wind.

\$10 plus shipping (1st Class - \$4.30, Parcel Post will be a bit less)

Brian Harris WA5UEK

=

-----  
Message-ID: <387BA118.F3E0BF62@vifp.monash.edu.au>

Date: Wed, 12 Jan 2000 08:31:04 +1100

From: Morris Odell <morriso@vifp.monash.edu.au>

MIME-Version: 1.0

To: Old Tube Radios <boatanchors@theporch.com>

Subject: Re: BENCH MULTIMETER RECOMMENDATION

Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

Anchorites,

David Stinson wrote:

> Need a recommendation from the group.  
> I fried my old digital multimeter,  
> probably as an excuse to get a new one-  
> it wasn't very good.

One of the hazards of boatanchorage is that it can be all too easy to fry a DMM. The more fancy and expensive DMMs are now claiming to be burn out proof and hopefully this will extend into the cheaper ones eventually.

I had a similar experience a few years ago which resulted in the ohmmeter ranges being burnt out of my old old no-name DMM. Since then I have replaced it with a new no-name and have also had the opportunity to compare it with other devices such as a HP 738BR calibrator and one of their 7 or 8 digit differential voltmeters (can't remember the number). I also have an AVO model 8 and a selection of HP VTVMs. Of course, with several instruments or calibration sources I never really know what the

voltage really is, but I can get an idea of the magnitude of errors.

The bottom line is that there's not all that much error in the mid range el cheapo DMMs. They were all within 5% and most were much closer than that. "Good enough for Government work" as they say. The worst performer was a little \$10 "2 for the price of 1" loss leader DMM from Dick Smith which was around 5% out but can be considered disposable. The surviving voltage ranges of the battered old no-name were still within 1-2% of the new one.

I think intermediate quality larger DMMs at around Au\$150 with all those extra ranges (capacitance, transistor tester, even frequency counter) are very good value. They are reasonably accurate (certainly within 2%) and you don't have to worry about an expensive instrument such as a Fluke getting damaged by routine bench abuse. Here in Australia Fluke DMMs are very much more expensive than the generics and it seems to me that unless you are using them professionally it's hard to justify the expense. You can get 2 good performing generics for the price of a Fluke and after all, without access to a cal lab, who can say whether any of them would be any more accurate, reproducible or stable.

73 de Morris VK3DOC

-----  
Date: Tue, 11 Jan 2000 13:27:56 -0800  
From: Arden Allen <gumbear@pacbell.net>  
Subject: Re: Ranger-I help  
To: Old Tube Radios <boatanchors@theporch.com>  
Message-id: <0F0600953X30LF@mta4.snfc21.pbi.net>  
MIME-version: 1.0  
Content-type: text/plain; charset=ISO-8859-1  
Content-transfer-encoding: 7bit

Hi Richard;

> Since the fuse plug contains two different value fuses, would a  
> correct update be to put two fuseholders in series in the hot-lead  
> under the chassis? I think there is fast-blo fuse of higher amps  
> for major malfunctions, and a slo-blo fuse of lower amps for tune  
> errors. At least that's my interpretation of this.

If you want to engineer enhanced protection there is nothing wrong with both sides of the line being fused. It doesn't add much of a safety factor though. The reason for the lower value fuse is so that the line (hot) side, being the lower value fuse, would blow for an overload problem and leave everything in the primary circuit cold. But to work properly it

requires a polarized plug AND a correctly wired outlet. The reason for having the larger fuse is in case of AC line reversal AND a short to chassis the larger value fuse would blow (assuming the chassis is grounded). It is mostly a gimmick.

The problem I have with the short to chassis senario is the cause. Insulation failure, when things are installed and maintained properly, does not suddenly occur with insulation resistance suddenly going to zero. What usually occurs first is a FIRE (with or without flames, i.e., burning of the insulation) and that cannot be prevented by a fuse. Unitil major burning of the insulation produces enough conductive carbon to provide a low enough resistance the fuse won't blow. The obvious way to address that problem is to correct any primary circuit insulation problems FIRST. AVOID POORLY THOUGHT OUT GIMMICKS!

Transformers are another story. When transformer primary winding insulation (between winding and core) failure occurs there is usually little or no warning and it occurs at a weak point in the transformer's insulation where the stress is high, in other words on the hot end of the primary. Most transformer insulation failures occur between adjacent turns or winding layers, not to chassis. Shorts to chassis mostly occur in high voltage windings or filter chokes in the high voltage side of the power supply. Keep in mind, transformers do not have an unlimited insulation lifetime unless they are never operated. The original power transformer in my 1927 Radiola 17 is still good but I only play it for show and not for long while keeping my fingers crossed. It is also fused.

For REAL protection against mistuning problems there should be a fuse in the B+ to the final amplifier plate and screen supply. The fuse holder should NOT be a panel accessible fuse post if the B+ is more than 300 volts. Fusing high voltage requires a high voltage fuseholder that is only accessible when all power is removed and power supply capacitors are discharged. BE CAREFUL HERE. It would be much safer to use a circuit breaker in the primary of the plate transformer for this kind of protection. If you are that much worried about mistuning problems perhaps you should review your tune-up/band changing procedures. Some things to think about.

Arden Allen KB6NAX Vallejo, CA gumbear@pacbell.net

-----  
Date: Tue, 11 Jan 2000 16:32:55 -0500  
From: Allan Stephens <modsteph@ACS.EKU.EDU>  
Subject: RE: Ranger-I help  
To: Old Tube Radios <boatanchors@theporch.com>  
Message-id: <387BA186.EDB359A7@acs.eku.edu>  
MIME-version: 1.0  
Content-type: text/plain; charset=us-ascii

Content-transfer-encoding: 7bit

> Richard wrote:

(speaking of the two-fuse fuse plug)

> I think there is fast-blo fuse of higher amps  
> for major malfunctions, and a slo-blo fuse of lower amps for tune  
> errors.

Correct: a fast-blow to protect from a real short; a slow-blow of lower value ditto, but one that won't blow on starting current pulse.

> I didn't know EFJ made a Ranger-I.

They didn't. When the Ranger II came out it became the fashion to refer to the original Ranger as as "Ranger I" just to show which one you were talking about.

73, Al N5AIT

-----  
Message-ID: <387BA2CF.339014C0@vifp.monash.edu.au>  
Date: Wed, 12 Jan 2000 08:38:24 +1100  
From: Morris Odell <morriso@vifp.monash.edu.au>  
MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Query for the Brits  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Hi all,

I have a British made oscilloscope for which I am looking for a manual:

Solartron Type CD523S.2  
JS (? Joint Serices) Cat No 6625-99-943-7177  
"Oscilloscope CT386A"

It's a 3 inch single beam with an orange filtered screen. About half the volume of a Tek 500 series and quite heavy for its size. Lots of tubes, mainly British CV types, only a few of which are familiar.

Any help with this would be much appreciated.

73 de Morris VK3DOC

-----

Message-Id: <4.2.2.20000111160108.03acc600@mail1.telalink.net>  
Date: Tue, 11 Jan 2000 16:07:05 -0600  
To: Old Tube Radios <boatanchors@theporch.com>  
From: Tom Norris <badger@telalink.net>  
Subject: Re: BENCH MULTIMETER RECOMMENDATION  
Cc: boatanchors@theporch.com  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"; format=flowed

Fair Radio has some good used Fluke 8000 series meters for 30 some odd dollars. I recently bought an 8000A and am quite pleased with it. Looking inside it has a 1992! board, no doubt a Fluke "flat rate" replacement. Took it to work and checked it and it is right on the money\* cal-wise. Don't know if they all will be in that good a shape. The 8000A is an older meter, but it is a decent bench meter, and DARNED good for 30 some dollars. There are dozens still in service where I work, and they seem to hold cal well even after all these years of use and abuse.

Tom

\*checked w/ Fluke 5700 calibrator

At 08:35 AM 01/11/2000 -0600, you wrote:

>Need a recommendation from the group.

>I fried my old digital multimeter,

>probably as an excuse to get a new one-

>it wasn't very good.

>

>I've got half a dozen rigs around here like TR-7 and TS-820

>to fix and my old Simpson 260 just won't cut it

>for that work. I need a good, affordable bench multimeter

>that is accurate and reliable. When it reads "10.00 volts,"

>I need to know it's -correct-.

>I don't have access to the EG&G cal lab anymore ;-).

>

>There's a wide choice of meter manufacturers.

>Can you recommend a brand?

>

>Thanks in advance for your help,

>Dave S.

-----  
Message-ID: <387BAD95.929D76C9@earthlink.net>

Date: Tue, 11 Jan 2000 14:24:21 -0800

From: Scott Robinson <spr@earthlink.net>



MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: BENCH MULTIMETER RECOMMENDATION  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Morris Odell wrote:

>  
> Anchorites,  
>  
> You can get 2 good performing generics for the price of a Fluke  
> and after all, without access to a cal lab, who can say whether any of  
> them would be any more accurate, reproducible or stable.  
>

and Scott says:

I follow the principle of "buy a good 'un...once" in this matter. I  
have not broken the Fluke 87 in 3 years, and most of what it does is  
fix tube radios. Its features are well thought out and it's accurate,  
so as long as I don't manage to break it, I will be happy at USD 330.  
Divide that by 20 years...

Regards,

--  
Scott Robinson  
spr@earthlink.net

Junque is GOOD for you!

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End of BOATANCHORS Digest 2776  
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